

ABSTRACT OF THE DISCLOSURE**MEANS OF COMPENSATION TO INCREASE THE CONTRAST RATIO OF LCoS
BASED VIDEO PROJECTION SYSTEMS**

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10 An arrangement of optical components and orientation
thereof that performs both skew ray compensation and reduction
of residual retardation in LCoS based display devices. A
principle axis of a quarter waveplate oriented is aligned
parallel to reference axis, and a microdisplay device is coupled
15 to the quarter waveplate and oriented at an angle θ_0 such that
an optical "axis" of the microdisplay is optimally oriented for
residual retardation compensation with respect to the linearly
polarized light input to the microdisplay from the quarter
waveplate when the reference axis is parallel to an axis of
20 linear polarization of light incident to the quarter waveplate.
A quarter waveplate and a half waveplate are oriented at $1/2$
 θ_0 and a microdisplay is oriented at θ_0 . A prism assembly
constructed using microdisplay packages that simultaneously
perform skew ray and residual retardation compensation.

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